Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

1-10. (Canceled).

11. (Currently Amended) A radar system for a motor vehicle, comprising:

a control device; and

a radar sensor to monitor an area surrounding the motor vehicle without the presence of another radar sensor monitoring the same area, the sensor configured to monitor traffic in a lane adjacent to the motor vehicle, the radar sensor including a phase-controlled antenna and the control device configured to set a plurality of radar lobes having differing geometries, the control device being further configured to generate different configurations of radar lobes in succession over time by changing at least one of a total number of radar lobes being generated at a particular time and a geometry of the plurality of radar lobes, the change occurring during vehicle operation;

wherein the control device analyzes propagation times, frequencies and phases of a radar echo to determine direction from which the echo was received and distinguish which one of the plurality of radar lobes the echo originated from.

12. (Previously Presented) The radar system as recited in claim 11, wherein the control device is configured to generate at least from time to time at least two radar lobes having differing directions of emission simultaneously.

13. (Previously Presented) The radar system as recited in claim 12, wherein the radar lobes are of different sizes.

14. (Previously Presented) The radar system as recited in claim 13, wherein a larger one of the two radar lobes is oriented obliquely toward a rear and side with respect to a longitudinal direction of the motor vehicle, and a smaller one of two radar lobes is oriented to the side with respect to the longitudinal direction of the motor vehicle.

15. (Previously Presented) The radar system as recited in claim 12, wherein the radar lobes are of approximately a same size, and one of the radar lobes is oriented toward approximately a rear with respect to a longitudinal direction of the motor vehicle and the other one of the radar lobes is oriented obliquely toward the rear and to a side of the motor vehicle.

16. (Canceled)

17. (Currently Amended) The radar system as recited in claim [[16]] 11, wherein a configuration of radar lobes generated at a first instant is rotated by a specified angle relative to a configuration of radar lobes generated at another instant.

18. (Currently Amended) The radar system as recited in claim [[16]] 11, wherein the configurations of radar lobes generated successively over time differ with regard to the number of separate radar lobes.

19. (Previously Presented) The radar system as recited in claim 18, wherein the control device is configured to alternately generate a configuration having two radar lobes and a configuration having only one radar lobe, the one radar lobe being located approximately on a bisector of the two radar lobes of the other configuration.

20. (Previously Presented) The radar system as recited in claim 11, wherein the control device is configured to vary a direction of emission of the radar lobes as a function of curvature of a road.

21. (New) The radar system as recited in claim 17, wherein a geometry of each of the radar lobes is changed when the radar lobes are rotated.

22. (New) The radar system as recited in claim 19, wherein the one radar lobe is formed by merging the two radar lobes.